UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/465,418	12/16/1999	GEOFFREY B. RHOADS	60075	8844

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EXAMINER
MILLER, MARTIN E

ART UNIT	PAPER NUMBER
2623	11

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/465,418	RHOADS ET AL.
	Examiner	Art Unit
	Martin Miller	2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 March 2003</u> .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-5,14 and 18-28</u> is/are pending in the application.

　　4a) Of the above claim(s) <u>6-13 and 15-17</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-5,14 and 18-28</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

　　If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____ .

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

　　a)☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)　　　　4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)　　5)☐ Notice of Informal Patent Application (PTO-152)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>10</u> .　　6)☐ Other: .

DETAILED ACTION

Information Disclosure Statement

1.   The examiner has considered the IDS filed March 5, 2003 and an initialed copy is

included with this office action.

Response to Amendment

2.   Claims 6-13 and 15-17 been canceled and new claims 18-28 have been entered.

Response to Arguments

3.   Applicant's arguments filed March 5, 2003 have been fully considered but they are not

persuasive.

Applicant argues that Mowry does not recognize the security document. Applicant states

that "Mowry teaches *reading* machine-readable data from a document". (original emphasis).

However, The examiner was relying upon Russell to recognize the machine readable data on the

document and perform the appropriate actions based upon the data read from the document.

Mowry merely was used to show that security documents also are well known to have machine-

readable codes, which the applicant admits (page 6 of Response, "Machine-readable data on

documents is old, with the magnetic ink printing of numerical routing information on personal

checks being familiar example.")

Furthermore, Applicant's specification uses Anti-counterfeiting system (ACS) marks that

are added to a security document, much like the readable code on Mowry's security document, to

serve as indicators that the document being scanned is a security document. Applicant's

argument that in the instant applicant the security document is recognized is not supported by the

specification. Applicant teaches decoding the ACS marks not recognizing a security document. The ACS marks are visible to humans just like the codes used by Russell.

In response to applicant's argument that "Russell does not deal with "unauthorized reproduction" so it is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Russell is recognizing a code on a document and sending the user to a website related to the document. Also, Russell teaches that the invention can be used for "Restricted-user control" (col. 19, ll. 53-56 and where bar code symbols can be used for that function, col. 19, ll. 64). Unauthorized reproduction is an equivalent function to restricting user control.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

5.   Claims 1-5, 14, 18-28 are rejected under 35 U.S.C. 112, first paragraph, because the

specification, while being enabling for decoding ACS marks on a document, does not reasonably

provide enablement for actually recognizing the document as a specific document. In light of

Applicant's arguments in the response (dated March 5, 2003, p. 6, 6th paragraph, "Mowry does

not ...") the specification does not enable any person skilled in the art to which it pertains, or

with which it is most nearly connected, to make and use the invention commensurate in scope

with these claims. Applicant claims recognizing a security document, however, the specification

provides no details of how the document is recognized. One of ordinary skill in the art would be

relegated to perform undue experimentation to recreate applicant's invention. The breadth of the

claims is beyond a machine reading marks from a document under test and decoding the

markings to instruct a computer to perform the action encoded by the markings. As defined in

Merriam Webster's Collegiate Dictionary, tenth edition, definition 3a, recognize means "to

perceive to be something or someone previously known". The instant invention recognizes ACS

marks on the document not the document itself. The nature of the claimed invention is to add

ACS marks to documents, detect the ACS marks with a detector, and then direct a computer to

an Internet website based upon the decoded ACS marks. One of the uses of such a method is to

prevent people from counterfeiting. Applicant states in the conclusion section of his patent

application that "barcodes...are among many other indicia by which protected documents may

similarly be distinguished. Any such recognition technology may be employed, e.g. to launch a

web browser" (page 9, ll. 16-18). The state of the prior art is dynamic with respect to document

recognition because of the rapid advances in image processing and printer quality that allow the

causal computer user to potentially be a counterfeiter (see Gruhl et al., "Information Hiding to

Foil the Casual Counterfeiter", Proc. 2d Information Hiding Workshop, LNCS vol. 1525, pp. 1-

15.). The level of one of ordinary skill in the art is likely to be a Master's or Doctorate degree

holder in electrical engineering, computer engineering, computer science, or physics. Other

than detecting the ACS marks, the applicant has provided no information as to how the specific

security document (e.g United States Twenty dollar bill or Maryland State Lottery ticket) would

be recognized as being that specific security document, the United States Twenty dollar bill

versus a Maryland State Lottery ticket, without the use of the ACS marks. The examiner has no

knowledge of a working example of the instant invention. To determine how the applicants of

the instant invention recognize a specific security document to be that specific document would

require an extensive amount of experimentation because the applicant does not teach how the

documents are recognized, but merely teaches placing marks on the documents that are decoded

and used to send the decoder of the marks to an Internet website via a web browser.

Claims 2-5, 19-28 are rejected due to their dependence upon rejected claims 1, 14, and

18.

6.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
subject matter which the applicant regards as his invention.

7.   Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

Claim 1 uses the modifier "thereto" at the end of the claim, however, it is indefinite

whether it refers to the web browser or the security document.

Claims 2-5 are rejected because they are dependent upon rejected claim 1.

Claim Rejections - 35 USC § 103

8.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

9.   Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell et al.,

(hereinafter Russell), US 5905248 and Mowry, Jr. (hereinafter Mowry), US 5951055.

As per claim 1, Russell teaches:

recognizing a document (transaction cards, other printed media, col. 2, ll. 57-59) and, in

response, directing (accessing) a web browser to a website related thereto (col. 2, ll. 57-62).

Although it is arguable that a transaction card (e.g gift card, credit card) is equivalent to a

security document because it performs substantially the same function in the same manner, and

Russell teaches that other types of print media can be used to conduct financial transactions with

his system (col. 20, ll. 23) with his system and that other security functions can be performed

(col. 19, ll. 49-50), Russell does not specifically teach recognizing a "security document". But

Mowry does teach recognizing a security document with a hidden security image and a machine-

readable code, col. 4, ll. 53-55.

It would have been obvious to one of ordinary skill in the art to use the security document

hidden images and machine-readable codes as the "other printed media" of Russell so as to

provide another use of Russell's system, which is particularly useful because Russell teaches a

hand-held version that could be used by merchant's and consumers not only to prevent

unauthorized reproduction, but also to prevent passing off the unauthorized copy. Additionally,

the system of Russell teaches that his system can be used to direct a user to information

resources (col. 25, ll. 7-14) in order to more effectively carry out the information-related

transactions.

As per claim 2, Mowry teaches:

presenting to a user a substitute ("pseudo originals") image from the website (col. 5, ll. 7-

10).

As per claim 3, Russell teaches:

presenting a user with supplemental information ("particular type of information-based

transaction") relating to the recognized security document, or to its permitted use, from the web

site (col. 2, ll. 56-60). Clearly, during an information-based transaction, information must be

exchanged between the user and computer system being accessed.

As per claim 4, Russell teaches that his system uses machine-readable barcodes (col. 8, ll.

55-65) and does not specifically mention a digital watermark. However, Mowry teaches the use

of digital glyphs. Therefore, Mowry teaches:

the use of recognizing a security document by a digital watermark encoded therewith

(col. 1, ll. 22-26, col. 4, ll. 32-35, 53-54). Mowry also teaches that other information bearing

elements other than digital glyphs can be encoded in the security document so long as it is not

recognizable by the unaided human eye, which also serves the purpose of not detracting from the

aesthetics of the security document. Preserving the aesthetics of the security document is also an

objective of the applicant (See specification page 2, ll. 9-11). Additionally, the specification

states that the anti-counterfeiting system markings can be added to existing documents as an ink-

marking (See specification page 2, ll. 11-15) just like Mowry's digital glyphs

As per claim 5, Russell teaches:

a computer storage medium having instructions stored thereon for causing a computer to

perform the method of claim 1 (Figure 1, element 6A, "client computer", col. 2, l. 56.

10.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mowry.

Mowry teaches:

receiving first image data (attempted copy, col. 4, ll. 64-66);

substituting second image data ("pseudo original", col. 5, ll. 7-10) for the first image data,

But Mowry does not specifically teach "the second image data being an image of play money.

Examiner is using the following definition to be the minimum requirements for defining play

money: The Counterfeit Detection Act of 1992 permits color illustration of U.S. currency

provided that the illustration is less than three-quarters or more than one and one-half times the

size, in linear dimension, of any part of the bill;

(http://www.frbatlanta.org/invoke_brochure.cfm?objectid=83FD4205-9AF0-11D5-

898400508BB89A83&method=display_body).

So it would have been obvious to one of ordinary skill in the art that substituting the word

"VOID" in the reproduced document would effectively convey the information that the

document reproduced is not negotiable, and meet the the requirements of playmoney as stated in

the specification (p. 6, ll. 18-26).

11.   Claims 18, 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Witschorik, US 6131718 and Durst, US 5933829.

As per claim 18, Witschorik teaches:

recognizing (col. 3, ll. 40-44, Validation module 70 (see fig. 4) reads and writes security

data on bill.., col. 5, ll. 28-32, col. 6, ll. 64-65, or alternatively, col. 8, ll. 2-7) a government-

issued security document (paper currency, col. 3, ll. 25-27);

Witschorik teaches in fig. 1, element 40 a communications system the could be any

public telephone network (Internet) connection-based protocols either dial-up or leased line

connections (col. 4, ll. 47-54) to provide communications accessing a security computer 30 via a

communications module 90 (see fig. 4) via any variety of conventional telecommunications

network access devices (col. 5, ll. 38-40) to receive authentication data, Witschorik does not

specifically state that he is accessing a website to receive such data. However, Durst teaches:

in response to recognition of such document, contacting a web site (col. 4, ll. 65-67, col.

5, ll. 39-53) that provides information regarding reproduction of the document (col. 8, ll. 35-40,

determination as to whether which data should be sent back to the user).

Durst states that his system can be used with security information useful for completing

secured transactions, and Witschorik teaches that his system responds to the read dollar serial

number and the embedded magnetic security code (col. 7, ll. 9-14).

It would have been obvious to one of ordinary skill in the art to use the website accessing

system of Durst with the security code number validating system of Witschorik to eliminate

counterfeiting by instantly confirming the authenticity of the exchanged dollar and to provide

output messages to the user (fig. 4, element 80, col. 5, ll. 36-37) regarding whether the dollar

under test has been reproduced.

As per claim 24, Witschorik teaches:

the security document is a banknote (col. 1, ll. 15-25).

As per claim 25, Witschorik teaches:

wherein recognizing is performed by a scanner (figure 1, element 50, col. 4, ll. 55-58).

As per claim 26, Witschorik teaches:

wherein said recognizing is performed by driver software in the scanner (col. 8, ll. 4-6).

As per claim 27, Witschorik does not specifically tech that the recognition is done in the

general purpose computer, But Durst teaches:

wherein said recognizing is performed by a general purpose computer (col. 5, ll. 37-45).

12.   Claims 19, 23 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Witschorik and Durst as applied to claim 18 above, and further in view of Gruhl et al.

(hereinafter Gruhl), Information Hiding to Foil the Casual Counterfeiter", Second International

Workshop on Information Hiding, April 17, 1998.

Durst does not specifically state the type of website accessed. However, Durst does teach

that the website accessed is related to the document scanned (col. 4, ll. 66-67, col. 5, ll. 54-60).

Witschorik teaches that the web address is directly related to validating the dollar. Gruhl teaches

an anticounterfeiting system.

As per claims 19, Gruhl teaches:

web sites that provides information about counterfeiting and penalties (endnotes 11-13, page 15).

It would have been obvious to one of ordinary skill in the art to direct the user of a system like Witschorik and Durst to a website that not only confirms the validity of currency or information about counterfeiting, but also allows the user to provide the would-be counterfeiter with potential penalties for continued passing of false currency. One of ordinary skill would be motivated to look at Witschorik and Durst in light of Gruhl since the system of Durst is used to provide information regarding the document scanned and Witschorik is a system that validates currency over a public network.

As per claims 23, Gruhl teaches:

web sites that provides guidelines for legitimate use of security document images (endnotes 11-13, page 15).

As per claim 28, although Witschorik teaches using magnetic information areas (figs. 2a, 2b, and 2c, elements 25a, 25b, 25c) not steganographic data decoded using visible light. But Witschorik teaches that any suitable recordation technology can be used, col. 3, ll. 44-45, and even contemplates using a more desirable alternative in any after rising technology, col. 3, ll. 47-51. However, Gruhl teaches an after rising technology suggested by Witschorik, that can be applied to currency. Gruhl teaches:

wherein said recognizing includes decoding steganographically (imperceptibly embeds, page 3, section 2, second sentence) encoded data from visible light scan data (Gruhl is trying to solve the problems of using color copiers, page 2, Section entitled Problem),corresponding to said document(see fig 5, page 8).

It would have been obvious to one of ordinary skill in the art to use the imperceptible

watermark of Gruhl in the system of Witschorik and Durst to overcome the admitted

susceptibility of magnetic data to attack by introducing the patch watermark of Gruhl which can

better withstand the attack of counterfeiters particularly when trying to validate older dollars.

Conclusion

13.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. The following references are to be used together to teach a government-issued

security (Surety Bond) and a requirement that the Internet be accessed to insure validity of the

security: FROM FMC-48 Federal Maritime Commission surety bond and McKeon, US

5926552, which is system for insuring validity of surety bonds using Internet access. The

following U.S. patent(s) refer(s) to Internet Lottery system: Archer 6277026.

14.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

15.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Martin Miller whose telephone number is (703) 306-9134. The

examiner can normally be reached on Monday-Friday, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 872-9314 for regular

communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-3900.

mem
May 18, 2003

AMELIA M. AU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600